

### REMARKS

This application has been carefully reviewed in light of the Office Action dated September 11, 2002. Claims 19 to 38, 40, 41, 43, 44, 46 and 47 remain in the application, with Claims 1 to 18, 39, 42 and 45 having been canceled and Claims 19, 21, 31, 35, 37, 40, 41, 43, 44, 46 and 47 having been amended. Claims 19, 31, 40, 41, 43, 44, 46 and 47 are the independent claims. Reconsideration and further examination are respectfully requested.

Claims 1 and 2 were rejected under 35 U.S.C. § 102(b) as allegedly being anticipated by U.S. Patent No. 5,991,276 (Yamamoto). Claims 3 to 6 and 15 were rejected under 35 U.S.C. § 103(a) over Yamamoto in view of U.S. Patent No. 6,262,978 (Bruno), Claims 7, 8 and 19 to 24 were rejected under § 103(a) over Yamamoto in view of U.S. Patent No. 6,173,250 (Jong), Claims 9 to 12 were rejected under § 103(a) over Yamamoto in view of U.S. Patent No. 6,249,787 (Schleimer), Claims 13 and 14 were rejected under § 103(a) over Yamamoto in view of U.S. Patent No. 6,356,283 (Guedalia), Claim 16 were rejected under § 103(a) over Yamamoto in view of Bruno and further in view of U.S. Patent No. 5,673,080 (Biggs), Claims 17 and 18 were rejected under § 103(a) over Yamamoto in view of U.S. Patent No. 5,872,923 (Schwartz), Claim 25 was rejected under § 103(a) over Yamamoto in view of U.S. Patent No. 6,404,747 (Berry), Claims 26 to 30 were rejected under § 103(a) for the same reasons regarding Claims 9 to 16, Claim 31 was rejected for the same reasons regarding Claims 1, 7 and 8, Claims 32 to 38 were rejected for the same reasons regarding Claims 23, 25 and 26 to 30, and Claims 39 to 47 were rejected for the same reasons regarding Claim 31. Reconsideration and withdrawal of the rejections are respectfully requested.

Initially, Applicant notes several discrepancies in the rejections which make it difficult for Applicant to determine the grounds of rejection. Since Claims 1 to 18, 39, 42 and 45 have been cancelled, only the discrepancies in the rejections of the claims that remain pending in the application will be discussed. In this regard, the Office Action stated that Claims 26 to 30 are similar to the apparatus of Claims 9 to 16 and therefore, were rejected for the same reasons as Claims 9 to 16. However, Applicant fails to see the similarity since Claims 9 to 16 are dependent from Claim 1, while Claims 26 to 30 are dependent from Claim 19, and Claims 1 and 19 are wholly different in scope. In like manner, Claim 31 was alleged to be similar to Claims 1, 7 and 8 and therefore was rejected for the same reasons as Claims 1, 7 and 8, although Claim 31 is an independent claim that is wholly different from Claim 1. Similar discrepancies are applicable to the rejections of Claims 32 to 38 and 39 to 47. Thus, Applicant is not able to determine with any amount of certainty upon which references the rejections are based for Claims 26 to 47. However, it is submitted that Claims 19, 40, 43 and 46 substantially correspond to one another, and Claims 31, 41, 44 and 47 substantially correspond to one another and are similar to Claims 19, 40, 43 and 46, respectively, but include an additional feature relating to voice synthesizing. Therefore, while Applicant has reviewed all of the applied art, the rejections will be addressed based on the rejection of independent Claim 19.

The present invention concerns controlling data communication between a connected communication terminal and general-purpose terminal in, for example, a video conferencing system. According to the invention, voice data that has been entered to a data communication control apparatus from a communication terminal is subjected to voice recognition and text data is generated based upon the recognized voice data. Then, the text

data, generated from the voice data, is distributed to a general-purpose terminal with image data associated with the voice data. As an additional feature, voice synthesization of voice data may be performed based upon text data that has been entered to the data communication control apparatus from the general-purpose terminal, with the synthesized voice data being distributed to the communication terminal. As a result, users of a general-purpose terminal (such as a personal computer) can participate in a video conference so as to view image data and associated audio in the form of text data (associated with the image data) on a display, and can also provide audio data by inputting text data that is converted to voice data and transmitted to the communication terminals as voice data.

Referring specifically to the claims, amended independent Claim 19 is a data communication control apparatus for controlling data communication among a plurality of connected communication terminals, comprising connecting means for connecting a general-purpose terminal, image generating means for generating image data that conforms to the general-purpose terminal, image distributing means for distributing the image data, which has been generated by the image generating means, to the general-purpose terminal via the connecting means, voice recognition means for recognizing voice data that has been entered to the data communication control apparatus from the communication terminals and generating text data based upon the recognized voice data, and data distributing means for distributing the text data, generated from the voice data by the voice recognition means, to the general-purpose terminal with image data, associated with the voice data, distributed by the image distributing means.

Amended independent Claims 40, 43 and 46 are method, system, and storage medium claims, respectively, that substantially correspond to Claim 19.

Amended independent Claim 31 is along the lines of Claim 19, but includes additional features. Specifically, Claim 31 is a data communication control apparatus for controlling data communication among a plurality of connected communication terminals, comprising connecting means for connecting a general-purpose terminal, image generating means for generating image data that conforms to the general-purpose terminal, image distributing means for distributing the image data, which has been generated by the image generating means, to the general-purpose terminal via the connecting means, voice recognition means for recognizing first voice data that has been entered to the data communication control apparatus from the communication terminals and generating text data based upon the recognized first voice data, data distributing means for distributing the text data, generated from the first voice data by the voice recognition means, to the general-purpose terminal with image data, associated with the first voice data, distributed by the image distributing means, voice synthesizing means for synthesizing second voice data based upon text data that has entered to the data communication control apparatus from the general-purpose terminal, and audio distributing means for distributing the second voice data synthesized by the voice synthesizing means to the communication terminals.

Amended independent Claims 41, 44 and 47 are method, system, and storage medium claims, respectively, that substantially correspond to Claim 31.

The applied art, alone or in combination, is not seen to disclose or to suggest the features of amended independent Claims 19, 31, 40, 41, 43, 44, 46 and 47. In particular, the applied art is not seen to disclose or to suggest at least the feature of a data communication control apparatus that recognizes voice data that has been entered to the data communication control apparatus from communication terminals and generates text

data based upon the recognized voice data, and distributes the text data, generated from the recognized voice data, to a general-purpose terminal with image data, associated with the voice data.

Yamamoto is merely seen to disclose a video conference system that includes a plurality of video conference terminals, a video conference server and a video conference administrator. However, as admitted in the Office Action, Yamamoto fails to disclose a voice recognition means and therefore, Yamamoto fails to disclose or to suggest at least the feature of recognizing voice data that has been entered to a data communication control apparatus from communication terminals and generating text data based upon the recognized voice data, and distributing the text data, generated from the recognized voice data, to a general-purpose terminal with image data, associated with the voice data.

Jong is merely seen to disclose a system that provides for chat over the Internet. Speech input at one side is converted to text, with the converted text being transmitted to the other side, where the text may be displayed or may be converted to speech. Thus, Jong merely provides for speech-text conversion in Internet chat. However, nothing in Jong discloses or suggests that the text has associated image data that is distributed to a general-purpose terminal. In addition, in Jong, the speech-text and text-speech conversion is performed in the communication terminals and not in the control apparatus. That is, in Jong, a user's speech is converted into text, with the converted text being transmitted over the Internet to the receiving terminal, where the received text may then be converted into speech. Thus, nothing in Jong is seen to disclose or to suggest a control apparatus that has a voice recognition means that recognizes voice data that has been entered to the control apparatus from communication terminals and generates text

data based upon the recognized voice data. Accordingly, Jong is not seen to disclose or to suggest the features of the present invention.

Moreover, a combination of Yamamoto and Jong would not have rendered the invention obvious. In this regard, a combination of Yamamoto and Jong would have at best merely resulted in the communication terminal at one end of the video conference performing a process to convert speech into text, and to transmit the text over the network to the video conference server, which synchronizes the text and video and transmits the received text and video to a communication terminal at another video conference location, where the received text may then be converted into speech by the communication terminal at the other end of the video conference. Thus, a combination of Yamamoto and Jong still would not have resulted in a data communication control apparatus that recognizes voice data that has been entered to the data communication control apparatus from communication terminals and generates text data based upon the recognized voice data, and distributes the text data, generated from the recognized voice data, to a general-purpose terminal with image data, associated with the voice data.

The other applied art (namely, Bruno, Schleimer, Guedalia, Biggs, Schwartz and Berry) has been studied but none are seen to add anything to overcome the deficiencies of Yamamoto and Jong. In particular, none of the other applied art, alone or in any permissible combination, is seen to disclose or to suggest at least the feature of a data communication control apparatus that recognizes voice data that has been entered to the data communication control apparatus from communication terminals and generates text data based upon the recognized voice data, and distributes the text data, generated from the

recognized voice data, to a general-purpose terminal with image data, associated with the voice data.

In view of the foregoing amendments and remarks, the entire application is believed to be in condition for allowance and such action is respectfully requested at the Examiner's earliest convenience.

Applicant's undersigned attorney may be reached in our Costa Mesa, California office at (714) 540-8700. All correspondence should continue to be directed to our below-listed address.

Respectfully submitted,

  
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